CLAIMS:

1. AGC circuit comprising a digitally controlled amplifier being provided with a gain control loop including a level detector, a threshold circuit and a digital gain control signal generator being coupled to a gain control input of the digitally controlled amplifier for supplying thereto a digital gain control signal, characterized by a continuously controlled amplifier being coupled between an output of the digitally controlled amplifier and the level detector, an output of the level detector being coupled to a gain control input of the continuously controlled amplifier for supplying thereto an continuous gain control signal, the gain variation range of the continuously controlled amplifier at least corresponding to the gain step variation of the digitally controlled amplifier at an incremental step of said digital gain control signal.

2. AGC circuit according to claim 1, characterized by a loop filter being coupled between the output of the level detector on the one hand and the gain control input of the continuously controlled amplifier and the threshold circuit on the other hand.

3. AGC circuit according to claim 1 or 2, characterized in that the threshold circuit comprises first and second comparators for comparing the output signal of the level detector with positive and negative threshold levels around a zero level for initiating the digital gain control signal generator for a stepwise variation of the gain of the digitally controlled amplifier.

4. AGC circuit according to one of claims 1 to 3, characterized in that the digital gain control signal generator comprises a pulse generator coupled to a clock-signal input of a digital counter for supplying a clock-signal thereto, the threshold circuit including a third comparator for comparing the output signal of the level detector with a zero level, an output of the third comparator being coupled to an up/down input of the counter.

5. AGC circuit according to one of claims 3 or 4, characterized in that the gain variation range of the continuously controlled amplifier caused defined by the range of the

continuous gain control signal between the negative and positive threshold levels, corresponds at least to the gain variation of the digitally controlled amplifier over two consecutive incremental steps of said digital gain control signal.

6. AGC circuit according to one of claims 4 to 5, characterized in that the time period between two consecutive clock pulses of the clock-signal is chosen sufficiently large to prevent superposition of subsequent gain step variations of the digitally controlled amplifier from occurring.

7. AGC circuit according to one of claims 1 to 6, characterized in that the time-constant of the loop-filter is chosen sufficiently large to prevent regenerative feedback of the gain control signal in the AGC loop from occurring.

8. Receiver for digitally modulated signals comprising an AGC circuit as claimed in one of claims 1 to 7, characterized by said digitally controlled amplifier being coupled between an RF input filter and a phase quadrature mixer stage, phase quadrature outputs thereof being coupled through frequency selective means to a pair of phase quadrature continuously controlled amplifiers, this pair of phase quadrature continuously controlled amplifiers being coupled through to a pair of phase quadrature analogue to digital converters to said level detector.

9. Receiver as claimed in claim 8, characterized in that the receiver is a DAB receiver.